

**ABSTRACT**

A method for tracking an object includes producing energy fields at a plurality of different frequencies in a vicinity of the object, and receiving signals that are generated at a location of the object at the different frequencies in response to the energy fields. Multiple computations are made of spatial coordinates of the object based on the signals received at the different frequencies. Convergence of the computations is tested in order to ascertain whether the energy fields have been perturbed by an article in the vicinity of the object.